AP Microeconomics
Test: Market Structure
Instructor's Version

Answers: Free-Response Questions

1. Monopoly

A. A monopoly occurs when an industry has only one firm that produces a product, and there are no close substitutes. Describe the conditions that lead to a monopoly. (6 points)

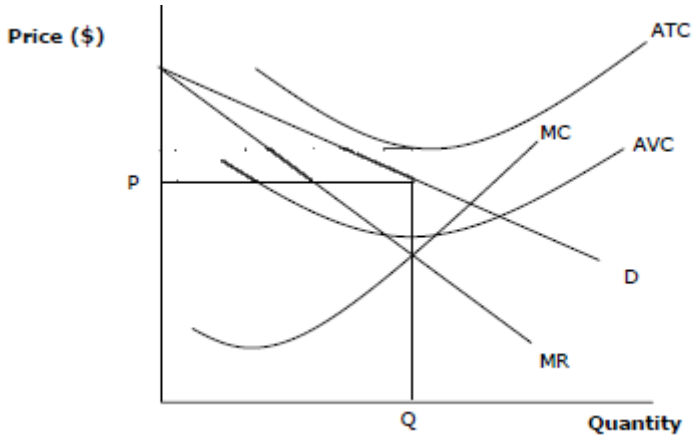
Part 1: In a monopoly, other firms can't enter the market because of barriers to entry. Barriers to entry are:
1. Large costs
2. Economies of scale
3. Ownership of a necessary resource that's a factor of production

Part 2: Sometimes the government grants rights to a natural monopoly.

1 point for Part 1, 1 point for each of the barriers to entry, 1 point for Part 2.

B. A monopolist does not have a guaranteed profit. Draw a graph that shows a monopolist that is losing money but will not shut down. (4 points) **Explain how your graph describes this situation.** (3 points)

Graph:



Explanation:
As with all firms, the monopolist produces where MR=MC. In this case, the ATC curve is above the price, showing a loss. However, this monopoly will not shut down because the price is still above the shutdown point where AVC=MC. This firm is covering its variable costs and some of its fixed costs.

4 points for the graph, 3 points for each sentence in the explanation.

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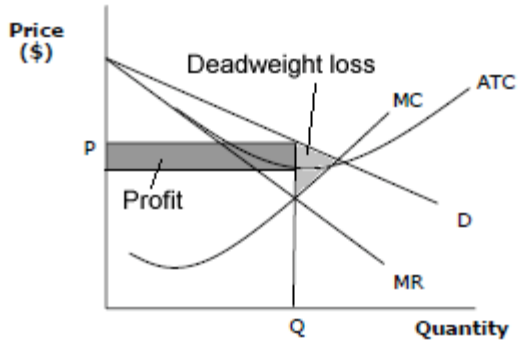
2. Draw the graph of an oligopoly. Include MR, D, MC, ATC curves, and clearly show profit and deadweight loss. (6 points)

Graph:



1 point for each curve labeled correctly and in proper position (4 points), 1 point each for profit and deadweight loss shown and labeled correctly (2 points).

3. Monopolistic and Perfect Competition

A. Why do firms in a perfectly competitive industry make zero economic profit in the long run? (6 points)

In a perfectly competitive industry, there are no barriers to entry. This means that if a profit is being made in the short run, new businesses will enter in the long run. When new businesses enter the industry, supply increases, driving the price down to the point where the long-run average cost, marginal cost, and short-run average total cost are all equal.

2 points for each sentence.

B. Draw a graph and write an explanation as to why a perfectly competitive market is both allocatively and productively efficient. (7 points)

Graph: The MR and MC curves intersect at the same point where they cross the demand curve. It also shows the ATC curve at its lowest point at this intersection.

Explanation: A perfectly competitive market is allocatively efficient because the price is where MR=MC=D, so there is no deadweight loss. Firms in a perfectly competitive market are productively efficient because they operate at the minimum of the long-run average cost curve.

Graph: 1 point for having MR=MC=D, 1 point for having minimum of ATC at this same point, and 1 point for overall accuracy (3 points total). Explanation: 2 points for each sentence (4 points total).

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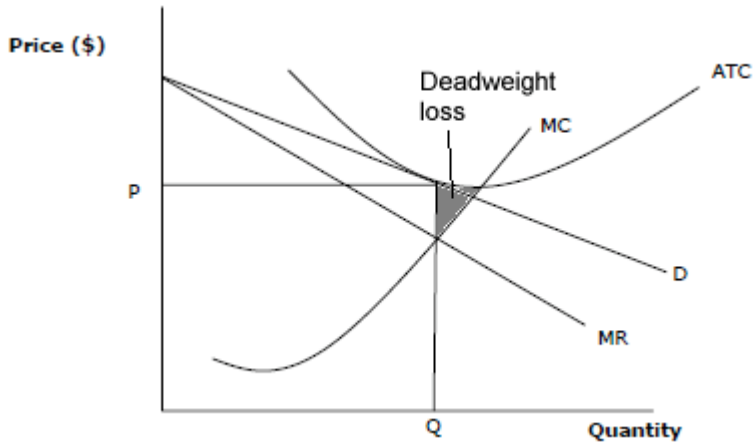
C. Use a graph and words to explain why a monopolistically competitive market is neither allocatively efficient nor productively efficient. (7 points)

Graph:



Explanation: A monopolistic competitor is not allocatively efficient because it sets price above the marginal cost, which produces deadweight loss. A monopolistic competitor is not productively efficient because it does not produce at the minimum of average total cost (where the ATC curve is at its lowest point).

Graph: 1 point for correct deadweight loss, 1 point for having minimum of ATC above quantity line, and 1 point for overall accuracy (3 points total). Explanation: 2 points for each sentence (4 points total).

4. What is a cartel? (2 points) **How does it function?** (4 points)

A cartel is a group of firms that make joint price and output decisions to maximize profit. Even though firms in a cartel agree to set prices and output, there's always an incentive to cheat and secretly increase output to earn more profit or secretly lower their price. A lower price attracts more consumers, so the cheating firm will gain at the expense of the other firms in the cartel.

2 points for each sentence.

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